PATENT SPECIFICATION

1,067,984

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Int. Cl.:—F 16 j.

COMPLETE SPECIFICATION

DRAWINGS ATTACHED

Discharge Hatch for Fodder Silos

We, METALLWERK A.-G. BUCHS, a Swiss Company, of Rheinstrasse, 9470 Buchs, Switzerland, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention relates to a discharge hatch for fodder silos made, for example, of a glass-fibre-reinforced synthetic resin.

In accordance with the invention, the discharge hatch for the fodder contained in the silo is characterised in that the hatchway bounded by an outwardly projecting edge is covered by a hinged wing having an inside curvature corresponding to the curvature of the inside wall of the silo and supported by the said edge, the wing being in its closed position secured by a yoke which is supported by the outside wall of the silo.

One construction of the subject-matter of the invention is diagrammatically illustrated by way of example in the accompanying drawings, in which

Figure 1 is an outside view of the closed hatch,

Figure 2 is a vertical section through the hatch, and

Figure 3 is a horizontal section.

It will be noted from Figures 2 and 3 that the hatchway, which is bounded by an outwardly projecting edge 1, is covered by a wing 3 swinging on a hinge joint 2. The curvature of the wing 3 corresponds to the curvature of the cylindrical inside wall of the silo, so that the contour of the interior of the silo in the zone of the hatch remains virtually unchanged, and the subsidence of the fodder in the silo is not impeded in any way.

The wing 3 is supported by the edge 1 through a supporting member 4 which contacts the edge 1 through a packing 5 made, for example, of neoprene. It will be readily understood that the sealing effect increases with increasing internal pressure.

A supporting yoke 6 which is pivotable on a bolt 7 is connected to the parts 3 and 4. The bolt 7 securely connected to the parts 3, 4 carries a hand wheel 8 which is screwed to the bolt 7, so that the yoke 6 may be pressed against and lifted from the outside wall of the silo by turning the hand wheel 8. The yoke 6 is provided in the form of a frame of rectangular section, which is smaller than the opening of the frame which is also of rectangular section. The frame-shaped yoke 6, which is pivotable on the bolt 7, may be pivoted from the illustrated closed position to the open position partly shown in broken lines in Figure 1. In the open position, the wing 3 and the supporting yoke 6 may be swung together about the hinge joint 2 and opened.

Locking means 9 are provided for securing the supporting yoke 6 in the illustrated closed position. The locking means consists of a strap or the like provided on the silo and passes through a correspondingly shaped opening of the yoke-frame.

It will be noted from Figures 1 and 2 that the horizontal webs 10 of the yoke are so positioned and constructed as to form at the same time parts of the climbing ladder.

WHAT WE CLAIM IS:—

1. Discharge hatch for fodder silos, in which the hatchway bounded by an outwardly projecting edge is covered by a hinged wing the inside curvature of which corresponds to the curvature of the inside wall of the silo, the wing being supported by the said edge and being locked in its closed position by a yoke which is supported by the outside wall of the silo.

2. A discharge hatch for fodder silos.

[Price 4s. 6d.]

according to claim 1, in which the means by which the wing is supported is a supporting member which contacts closely the whole periphery of the edge.

3. A discharge hatch according to claim 2 in which the yoke is pivoted to the wing.

4. A discharge hatch according to claim 3, in which means for locking the yoke are provided.

5. A discharge hatch according to any of the preceding claims, in which a hinge joint is provided for the angular adjustment of the wing.

6. A discharge hatch, substantially as hereinbefore described and illustrated in the accompanying drawings.

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1,067,984 COMPLETE SPECIFICATION
1 SHEET

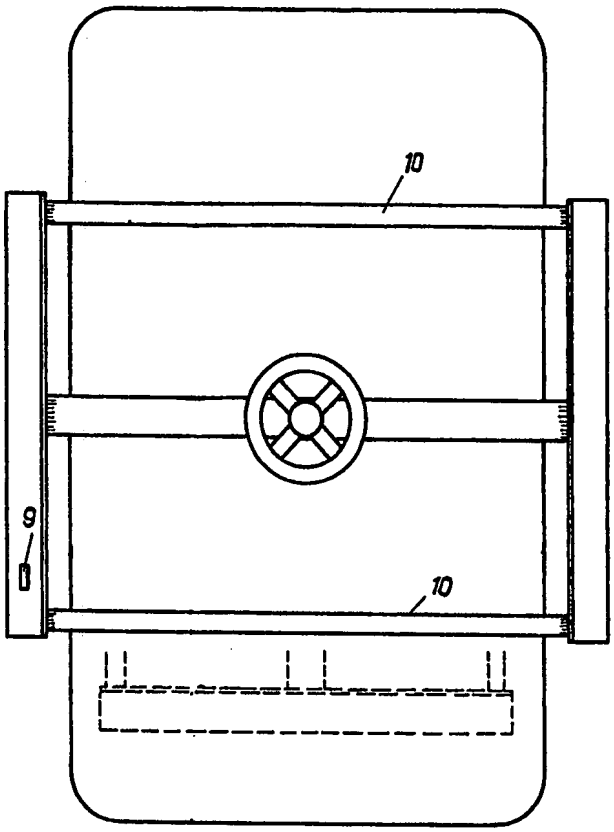

Fig.1

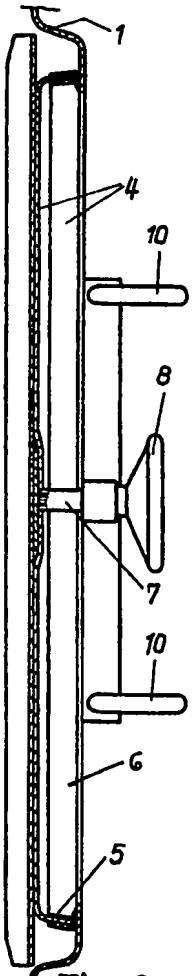

Fig.2

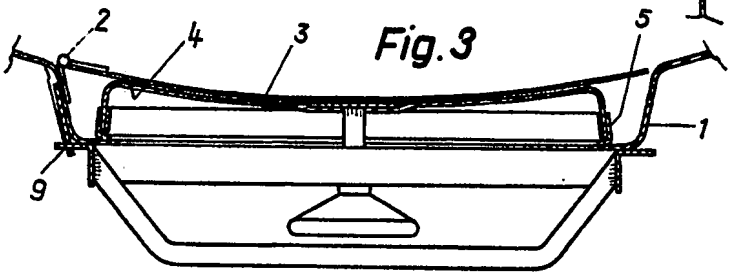

Fig.3